

the NIH Record

FILE COPY

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

June 28, 1966
Vol. XVIII, No. 13

NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE

Whedon Expresses Hope for Future Diabetes Research

Dr. G. Donald Whedon, Director of the National Institute of Arthritis and Metabolic Diseases, was guest speaker at the annual meeting of the New York Diabetes Association recently.



Dr. Whedon

Dr. Whedon spoke on developments in the study and treatment of diabetes, which indicates that a means of preventing this disorder may be found within the foreseeable future.

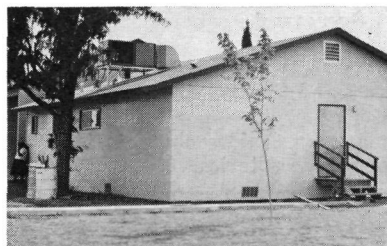
Underlying this outlook, he said, are "recent developments such as the finding of an American Indian tribe with the highest prevalence of diabetes ever reported, which affords us an opportunity to study various facets of the disease in a stable and homogeneous population group; the development of a new method of identifying people who will develop diabetes later in life; the discovery of a natural experimental model for the disease—a

(See DIABETES, Page 3)

New Portable Clinical Facility Dedicated In Arizona, Used for Long-Range Studies

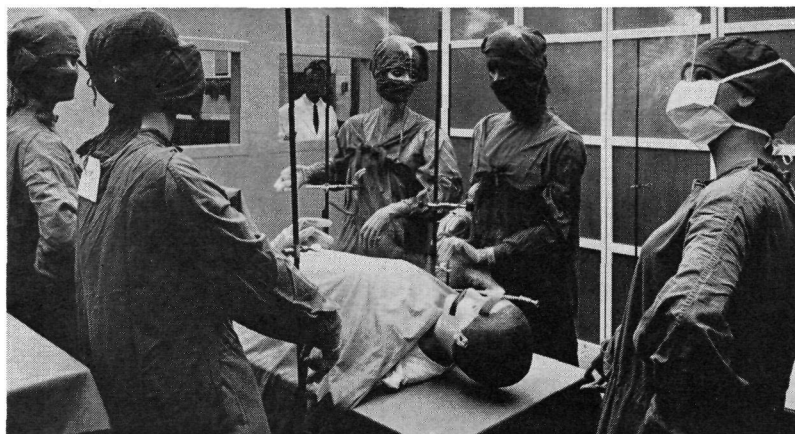
A new, portable clinical facility for long-range clinical and epidemiological studies on arthritis, diabetes and diseases of the gastrointestinal tract was formally dedicated June 13 at Sacaton, Ariz., on the Gila River Indian Reservation.

At the brief dedication ceremony, Dr. G. Donald Whedon, Director of the National Institute of



NIAMD's new, portable clinical field studies facility at Sacaton, Ariz., will house more intensive studies of diabetes and gall bladder disease among the Pima Indians.

New Ventilating Concept Being Tested In a Mock-Up Operating Room at NIH



Donald Fox (center background) looks through a window into the laminar air-flow room where his mannequins are demonstrating a "smoke pencil" break. The smoke pencils show how the new system carries smoke quickly out of the room and reveal the parallel direction of air circulation. The mannequins help simulate conditions of an operating room.—Photos by Jerry Hecht.

By Tony Anastasi

Experimental tests for keeping bacterial concentrations at minimum levels in surgical rooms and thereby significantly decreasing the chances for post-operative infections are being conducted by a sanitary engineer in the Environmental Services Branch of the Division of Research Services.

Called the "laminar airflow concept," the new procedure is being directed by Donald Fox of the En-

gineering Section of the Branch.

"The first experimental operation—a neurosurgical procedure—will take place in the laminar air-flow unit in the near future," Mr. Fox said.

"The mock-up operating room is being used in a cooperative project with the Surgical Neurology Branch of NINDB to compare results of the two different types of air supply systems, namely, laminar airflow and the conventional ventilation by dilution."

In operation, a horizontal flow of air passing through a wall of high efficiency filters rapidly removes all dust particles and bacteria down to 0.3 microns in size from the air stream.

This ultra clean air flowing through the room and filling it from side to side and from floor to ceiling prevents the accumulation

(See NEW CONCEPT, Page 5)

SMB Names New Section Head

Lewis D. Brown was appointed Head of the Property and Supply Section, Supply Management Branch, June 6.

Thomas V. White also was assigned to the Office of the Chief of the Branch as Special Assistant.

President's Award To Dr. Shannon Is Top Civilian Honor

Dr. James A. Shannon, Director of NIH, received the President's Award for Distinguished Federal Civilian Service in a ceremony in the White House East Room June 15.

This award, the highest honor the government can give career employees, was presented to Dr. Shannon by President Johnson "with profound appreciation, high esteem and great personal satisfaction."

The President described Dr. Shannon as a scientific administrator of great vision and forcefulness whose achievements have



Dr. James A. Shannon, Director of NIH, receives from President Johnson the President's Award for Distinguished Federal Civilian Service.

opened a new era in medicine and greatly improved the Nation's capability to achieve an eventual victory over the menace of disease and disability.

The President's Award, symbolized by a gold medal suspended from a blue and white neck ribbon, is granted each year to generally not more than five individuals of the career service whose achievements exemplify to an exceptional degree imagination, courage and high ability to carrying out the mission of the government.

For Dr. Shannon the President's (See DR. SHANNON, Page 8)

the NIH Record

Published bi-weekly at Bethesda, Md., by the Public Information Section, Office of Research Information, for the information of employees of the National Institutes of Health, principal research center of the Public Health Service, U.S. Department of Health, Education, and Welfare, and circulated by request to all news media and interested members of the medical- and science-related fields. The NIH Record content is reprintable without permission and its pictures are available on request.

NIH Record Office.....Bldg. 31, Rm. 4B13. Phone: 49-62125

Editor E. Kenneth Stabler

Staff Correspondents

Georgiana Brimijoin, NCI; Tony Anastasi, DRS; Bowen Hosford, CC; Mary Anne Gates, NIAMD; Marie Norris, NIDR; Ed Long, NIMH; Frances Dearman, NINDB; Martha Mader, NIAID; Faye Peterson, DBS; Wanda Wardell, NIGMS; Beverly Warran, DRFR; Dick Turlington, DRG; Gary Goldsmith, NHI; Frances Mills, OAM; Dan Rogers, NICHD.

The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policy of the paper and the Department of Health, Education, and Welfare.

NEWS from PERSONNEL

NEW COMMISSIONED OFFICERS

Some 410 Commissioned Officers are scheduled to report for duty here during the months of June and July. Most of these will arrive at NIH or at an NIH field station on July 1 and 2. Approximately 35 of the new officers will be reporting to NIH field activities located throughout the country and overseas.

Among locations in the U.S. are Baltimore, the Rocky Mountain Laboratory, Atlanta, New Orleans, Boston, Lexington and San Francisco. Overseas posts include Honolulu; Calcutta, India; Dacca, East Pakistan, and Cairo.

The majority of officers reporting are medical officers. However, all disciplines of the Commissioned Corps are represented, including scientists, dentists, veterinarians, engineers, pharmacists, statisticians, mathematicians and others. Forty-six of the new officers reporting are students participating in the COSTEP Program.

MINORITY GROUPS

As a part of the program for equal opportunity in Federal employment, during the week of June 27, each NIH employee will be asked to complete, in privacy, a brief card questionnaire concerning his race or national origin.

After completing the questionnaire the individual will place it in a furnished envelope, seal the envelope, and then return it to his supervisor.

Supervisors will forward all envelopes to Public Health Service headquarters where the information will be transferred to a magnetic tape record. All cards will then be destroyed and the magnetic

U.S. Marine Band Concert Set for Thursday at CC

The first in this season's series of outdoor band concerts for Clinical Center patients will be presented Thursday, June 30, at 7:30 p.m. by the United States Marine Band. The concert will be on the patio adjoining the Clinical Center auditorium. In event of rain it will be in the auditorium.

NIH employees, their families and friends are invited to attend. Patients will have priority in seating. Arrangements for this concert were made by the CC Patient Activities Section.

tape placed under the control of C. Robert Seater, Assistant Executive Officer of the PHS, designated as the system monitor.

The magnetic tape and all other information obtained through this system will be treated as completely confidential. All of the information will be maintained apart from personnel records and will be physically located outside the Office of Personnel.

While employees are not required to complete the questionnaire, the new statistics system resulting from the completed questionnaire will contribute significantly to the effectiveness of the equal opportunity program, and it is hoped that all employees will fully cooperate.

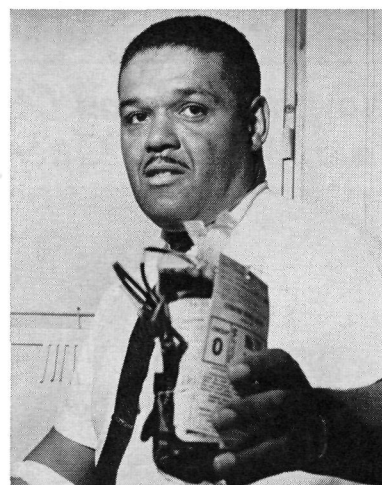
URGENT

There is a great need for clerks-typists to work in the Westwood Building. All employees are requested to pass the word to likely prospects who may call Ext. 62403, the Recruitment and Placement Section of the Personnel Management Branch.

Howard Drew, Decorated Veteran, Gives 56th Blood Donation for 7-Gallon Total

Howard P. Drew, a decorated Army veteran who is now a National Library of Medicine reference librarian, recently made his 56th blood donation—for a total of 7 gallons—at the NIH Clinical Center Blood Bank.

Mr. Drew's inspiration for donating so much blood stemmed from a bus accident at Fort Dev-



Howard P. Drew, Army veteran and donor of 7 gallons of blood, displays his 56th donation.—Photo by Ralph Fernandez.

ens, Mass., in 1945. A passenger on the bus, he extricated himself from the burning wreckage, re-entered through flames and brought out a critically injured fellow soldier.

Although burned on face, hands and arms, he tried to force his way in again but explosions drove him back. For his heroism the Army awarded him the Soldier's Medal.

Blood Aids Recovery

His recovery from severe burns was aided by transfusions of whole blood and plasma.

In 1950 Mr. Drew began donating blood. At first he gave at the District of Columbia Red Cross Chapter. For the past 2 years he has given at the Clinical Center.

Mr. Drew continues in the Army Reserve service as a master sergeant. He is in the Special Forces ("Green Berets") and has made 41 parachute jumps.

NIH Is Represented at Open Housing Hearing

The following statement was presented to the Montgomery County Commission on Human Relations by Dr. Julius White, NIH Deputy Employment Policy Officer, on behalf of the Director of NIH at recent hearings on open housing:

"We wish to express our interest in seeing that policies and practices which constitute a positive and continuing program for equal opportunities for all citizens are adopted within Montgomery County.

Equality Stressed

"The policy of the National Institutes of Health, in keeping with that of the Federal Government, is one of promoting equal opportunities for all. As a research agency whose goals are the betterment of mankind, we strongly endorse programs which will permit individuals to avail themselves of the rights due them under the laws of this country.

"Effective recruitment and retention of personnel are frequently interwoven with the local availability of suitable housing. As the largest Federal employer in Montgomery County, one of our great concerns is that the limitations of housing accommodations for reasons of race, creed, color or national origin should not preclude individuals from seeking employment at the National Institutes of Health because they are denied the opportunity for housing within

New Nonporous Grafts Have Many Advantages

NHI grant-aided scientists at the University of Minnesota Medical Center report that a new nonporous vascular prosthesis of woven Teflon terry cloth is superior to conventional grafts of crimped Dacron and Teflon with respect to formation and maturation of the grafts' inner lining or neointima.

The new material has been in extensive clinical use for 4½ years, said Drs. Robert Lee Simmons, Raymond C. Bonnabeau, Randolph M. Ferlic, David M. Long and C. Walton Lillehei, in Surgical Forum.

Although the high porosity of most woven synthetic vascular grafts is a characteristic long thought essential for healing or maturation of fibrin deposits into a smooth inner sheath of endothelial tissue, it has led to occasional serious bleeding episodes in heparinized patients during or soon after graft installation.

Successful experimental trials of the nonporous Teflon terry cloth prosthesis have avoided this hazard and, indeed, have challenged the concept of porosity as a primary desirable characteristic of synthetic arteries.

reasonable commuting distance.

"The National Institutes of Health endorses any suitable action which will provide equal opportunities in all endeavors for all individuals regardless of race, creed, color or national origin."

DIABETES

(Continued from Page 1)

laboratory animal which develops diabetes gradually when its diet is altered, and the laboratory synthesis of insulin."

All of these significant forward steps, he added, have been accomplished by NIAMD scientists or by Institute-supported investigators.

Dr. Whedon traced the progress against diabetes made by NIAMD scientists from the current epidemiologic work with the Pima Indians of Arizona who have the highest prevalence of the disease among the U.S. population as a whole, to the recently founded Diabetes Literature Index, a new monthly Institute publication which covers the entire current world literature in diabetes to keep investigators informed of recent developments in their field.

Citing the many recent discoveries "which are slowly but surely fitting together to improve diabetes treatment and management," Dr. Whedon concluded that "we now have reason to hope that for certain types of individuals its prevention will eventually be possible."

Dr. Murayama Helps Young Scientists Build Exhibit of Molecular Structures

Sandy Read and June Oberdorfer, seniors at nearby Sidwell Friends School, assisted by Dr. Makio Murayama of the National Institute of Arthritis and Metabolic Diseases, recently completed an exhibit showing the structure of a myoglobin molecule.

The two girls assembled the exhibit for their science classes, with help from Dr. Murayama, who



Sandy Read (left) and June Oberdorfer confer with Dr. Makio Murayama of NIAMD. They are looking at an exhibit of the structure of the myoglobin molecule the girls prepared with Dr. Murayama's assistance.—Photo by Jerry Hecht.

constructs molecular models as part of his research on sickle cell hemoglobin.

The project had its beginnings last fall when the girls' chemistry teacher asked for volunteers to build an exhibit that would help students understand molecular structure. Sandy, who had heard about Dr. Murayama's molecular models and his willingness to help

A New Generation Comes Into Its Own At NIH's Largest Personnel Orientation

Youth had its day at NIH on June 20 when the largest personnel orientation ever held here took place in Wilson Auditorium, Building 1.

Of the 248 new employees sworn in by Robert L. Schultheis, Assistant Chief of the Personnel Management Branch, 214 were born in the 1940s, and 101 of these are under 18 years of age. Two young re-



It's "Happy Birthday" and "Happy Workday" for Terry Hook (left) of Silver Spring, Md., who began a career at NIH on her 18th birthday. With her are Katherine M. Ryan and Robert L. Schultheis of the Personnel Management Branch.

cruits, John and James Schartner, twin brothers from Rockville, Md., are just 16.

The personnel processing was reminiscent in many ways of a college registration—except that these were not students signing up for classes but a new generation of NIH employees filling out final papers before reporting to job assignments.

According to Katherine M. Ryan, Head of the Program Services Section, Personnel Management Branch, the newcomers include 82 career employees and 166 summer employees.

Youth Trainees Hired

Among the summer employees are 78 youth trainees hired under the President's Youth Opportunity Campaign, providing meaningful work for disadvantaged youths, age 16-21.

A major purpose of this program is to enable these young people to return to school or to continue their education through their own efforts.

Most of the youth trainees at NIH are employed in groups, the theory being that in this way they can more easily be given the sensitive leadership and guidance from which they will learn good work habits. This does not, of course, preclude individual assignments where the work or personal circumstances indicate such placement.

Scientific Assignments

Also numbered among the summer employees who started work at NIH on June 20 are 27 college students preparing for scientific careers of their own. Holders of Student Assistant appointments, they are assigned to work under professionals in the microbiology, biology, chemistry and medical laboratories of the various institutes.

In addition, there are 61 Office and Science Assistants working here this summer in statistical, social science and clerical fields.

Student assistants at NIH represent many different colleges and geographical locations. Typifying the variety are:

ect has been extremely valuable because of the insight it has given them and their classmates into molecular structure.

Both girls plan to major in biology or chemistry when they enter college next fall. Dr. Murayama said he plans to keep an eye on them for future lab assistant vacancies.



Nancy Sauer (right) of Kensington, Md., a summer employee of NIH, pauses for refreshment provided by the R&W Association prior to the orientation. Serving her is Lillian Caraway of Government Services, Inc.—Photos by Ed Hubbard.

- Michael Teitelbaum, a student at Reed College in Portland, Ore., working as a scientific reference analyst in the Division of Biologics Standards.

- Gary Fields, University of Rochester School of Medicine, N. Y., assigned as a medical assistant in the National Cancer Institute.

- Leonard Friedman of Mobile, Ala., a medical student at Georgetown University, now with the National Institute of Neurological Diseases and Blindness.

Others Listed

- Karen Stingle, a student at Pembroke College, Providence, R. I., employed at the National Institute of Mental Health as a student assistant.

- Robert F. Seeley of Northfield, Mass., a Princeton University student, working at NIH this summer as a program analyst.

Regardless of age or circumstance, all received the same complete orientation from the Personnel Management Branch, saw the film on NIH, were served coffee and orange juice by the R&W Association of NIH, and were assured by Mr. Schultheis "that if they weren't needed, they wouldn't be here."

Dr. Green Is Appointed NHI Associate Director

Dr. Jerome G. Green has been named Associate Director for Extramural Programs of the National Heart Institute.

Dr. Green has been with Extramural Programs since he joined NHI in 1955 as a medical officer in the PHS Commissioned Corps. He was appointed EP's Deputy Chief in August 1965 upon his return to Bethesda from a special assignment at the Cleveland Clinic.

In December he became Acting Associate Director for Extramural Programs following the retirement of Dr. J. Franklin Yeager.

Studies on Malnourished Nigerian Infants Initiated

Dr. Leon L. Hopkins Jr., a consultant to the Nutrition Section, Office of International Research, is currently initiating studies with Dr. Joseph C. Edozien, Dean of the Faculty of Medicine, University of Ibadan, Nigeria, to determine the effectiveness of trivalent chromium in correcting disorders in the carbohydrate metabolism of malnourished infants in Nigeria.

This research is similar to studies previously conducted by Dr. Hopkins in Jerusalem, Jordan. At that time Dr. Amin S. Majaj, Chief of Pediatrics at Jerusalem's Augusta Victoria Hospital, collaborated with Dr. Hopkins.

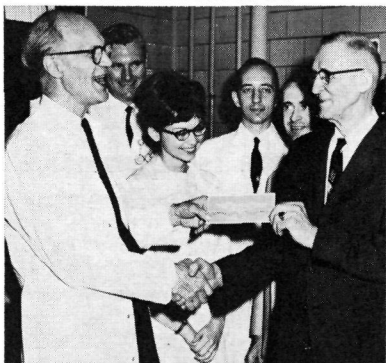
The studies, among refugee infants who were Dr. Majaj's patients, showed the ability of chromium to raise abnormally low fasting blood-sugar levels and to improve faulty sugar uptake by body tissues. These infants were suffering from severe malnutrition and showed a marked improvement in their bodies' ability to use sugar after receiving very small amounts of chromium.

Findings Presented

Dr. Hopkins presented his and Dr. Majaj's findings at the recent annual meeting of the Federation of American Societies for Experimental Biology.

These research studies are supported by the Advanced Research Projects Agency (Project Agile) and monitored by OIR's Nutrition Section.

Dr. Hopkins, who is a Research Biochemist in the Food and Drug Administration, previously worked with Dr. Walter Mertz and Dr. Klaus Schwarz, formerly of the National Institute of Arthritis and Metabolic Diseases, in studies which originally identified the role of chromium in carbohydrate metabolism.



HELPING TO SPUR Savings Bond Drive at NIH, Jesse B. Floyd, 72-year-old laboratory aide (right), receives from Dr. William J. Bowen, Chief, Section on Bioenergetics, a \$100 Savings Bond from his associates in NIAMD's Laboratory of Biophysical Chemistry, following his retirement this month after 20 years of NIH service.—Photo by Bob Campbell.

L. E. Waters Gets Award for Improving Method of Preparing Biological Samples

Lorenzo E. Waters, Technician of the Macromolecular Biology Section, National Cancer Institute, recently received commendation and a cash award for developing a more effective and economical method of preparing small quantities of biological material for electron microscopy.

Standard methods for the preparation of samples of animal tumor viruses require the recovery of visible "pellets" by centrifuging a virus suspension, and often permit loss of the smallest pellets in the process. Working on his own, Mr. Waters has perfected a small filtration apparatus which is now being used by some other laboratories as well as his own.

Process Described

With this apparatus, which uses a small, commercially available, plastic capsule, a small amount of virus is collected under slow suctioning in the middle of a tissue paper filter. After being covered with another filter paper and closed inside the capsule, the sample may be safely washed, embedded, impregnated, and sectioned before being investigated by electron microscopy.

Besides eliminating the risk of loss of samples for research, the new method has resulted in substantial savings. Animal leukemia viruses are expensive, and by markedly reducing the quantity of



Lorenzo E. Waters (left) receives a cash award from Dr. Eugene J. Van Scott, Scientific Director for General Laboratories and Clinics, NCI.—Photo by Ed Hubbard.

virus needed, Mr. Waters' method has already saved his laboratory \$16,000 on one kind of tumor virus alone. The method has the added potential of permitting the investigation of sparse biological samples which have up to now been impractical or impossible to examine.

Mr. Waters has been at NCI since July 1952. He lives in Takoma Park with his wife and 5 children. Mr. Waters described his family's interest in track competition. His 14-year-old daughter, Diane, who belongs to the Frederick (Md.) Track Club, last year broke the American record for girls' high jump. In indoor meets this past winter, she piled up points which won her the rating of the third best high jumper in the United States, Women's Division.

Statistics on Blindness Discussed at Conference

The Model Reporting Area for Blindness Statistics (MRA) held its Fifth Annual Conference in Boston recently to discuss progress of member States in collecting accurate, meaningful statistics on blindness in the United States.

The project, under the sponsorship of the National Institute of Neurological Diseases and Blindness, was organized in 1962 and presently has a membership of 14 States whose blindness registers have been reorganized to meet the standards of the MRA.

NINDB lends technical assistance and, in some cases, gives financial aid to States interested in developing or revising registers to meet these standards.

Summary tabulations dealing with reported incidence and prevalence are prepared annually from decks of punch cards sent to NINDB.

The registers are proving useful

Dr. Stewart Announces 5 Grants for Planning Regional Med. Programs

Five grants for planning Regional Medical Programs were announced recently by Dr. William H. Stewart, Surgeon General of the Public Health Service. The awards launched the program authorized last year by Congress to help bring the latest advances in the diagnosis and treatment of heart disease, cancer and stroke to all Americans.

The approved applications will result in grants for planning cooperative medical programs in regions of Hawaii, Kansas, Vermont, Connecticut and Missouri. Planning activities will include a detailed assessment of the particular health needs and present resources of the individual region for carrying out the purposes of the program.

DRMP Administrators

The five grant requests total \$1,630,392. However, the final amount of each award will be determined in negotiations with the staff of the new Division of Regional Medical Programs which is administering the grant program.

The grants will also support the development of plans for such activities as continuing education of physicians and other health personnel, demonstration of the most advanced techniques of diagnosis and treatment of these diseases, more effective integration of research activities with improved patient care, better means of gathering and analyzing medical data and the introduction of modern electronic technology in the distribution of medical knowledge and the diagnosis of disease.

Concept Explained

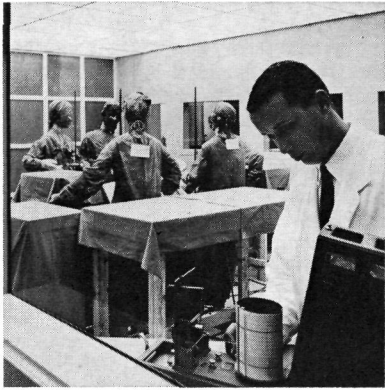
The concept of Regional Medical Programs was developed as a method to make more widely available the advanced capabilities now found in large medical centers. It will provide a mechanism for the effective communication of modern medical knowledge already available and for the development of new knowledge that can be applied for human benefit.

in the study of genetic diseases, in pinpointing need for research in a particular area, and in providing services to the blind. In addition, some of the registers have provided useful information for safety programs and medicare planning.

Project members work closely with ophthalmologists and optometrists, encouraging them to report new cases of blindness to the register, and asking their cooperation in providing complete data on age, sex, race, and degree and cause of visual impairment.

NEW CONCEPT

(Continued from Page 1)



Donald Fox, DRS sanitary engineer, checks a recording device which measures temperature and humidity in the laminar airflow unit. A simulated operation, with mannequins, is in the background.

of dust particles and bacteria by carrying them out of the room as quickly as they are released from people or objects in the room.

In the NIH laminar airflow experimental room, located in Building 11, the moving air is filtered through one entire wall, passes in parallel motion at about 80 feet per minute through the room, and up into ceiling vents at the other end of the room to be refiltered and recirculated.

Test Results Good

"Tests show that the laminar airflow room is at least 10-20 times cleaner than an ordinary operating room with normal, dilution air ventilation," Mr. Fox said.

Average air velocity in the 8' 3" high room, although actually less than one mile per hour, does provide 240 changes every 60 minutes in the room, compared with a maximum of from 8 to 12 air changes in a room with the presently accepted standards of ventilation and in the same period of time.

As soon as a person leaves the room, any airborne contamination he supplied is removed within two minutes and the room again becomes bacteria free, in contrast to a conventional room which may require 30-60 minutes to produce the same effect.

Rearrangements Possible

The 15' x 20' experimental operating room contains a number of mannequins and simulated operating room equipment that can be rearranged to study the airflow patterns during various phases of an operation with either smoke pencil, uranine dye, or viable bacteria released at selected locations and in measurable concentrations.

This new ventilation method was first developed for industrial clean rooms, especially for assembling critical electronic com-

Harvard Investigator Discusses Study of 'Saturday's Children' at NICHD Meeting

By Susan Weinberg

Dr. Mary Engel, of Harvard's Center for Research in Careers, calls them "Saturday's Children." They are truck jumpers, delivery boys, newspaper stuffers, shoeshine boys, snow shovelers, store sweepers— young boys 10 to 14 who work at odd jobs or regular jobs for strangers.

Dr. Engel is one of the members of a research team exploring why these boys work, how they feel about work, school, money, local politics and human nature, and how they differ from boys who don't work. She spoke about her NIMH-supported study entitled, "Saturday's Children: a Psychological Study of Working Boys," at a recent staff meeting here.

Interestingly, Dr. Engel said, the researchers have found a "regrettable but often realistic dislike of school" among the working boys. Subjects taught by men were liked, but the children considered women teachers "hired tormentors," unable to control themselves or their charges.

Grading Impersonal

The boys saw school and its personages and grading systems as an impersonal and imposing force, and regarded themselves not as "being taught" but as "having to perform in order to be graded."

The investigators have also been studying the boys' capabilities in abstract and practical thinking. Although they dislike school and often perform poorly, these boys have demonstrated average to above average intelligence on various tests.

Moreover, the degree of practical intelligence shown by some of the boys has surpassed what would have been expected from their scores on achievement tests.

Motives Listed

Dr. Engel has noted three possible work motivations for these boys. First, since the boys are from lower-middle or lower class neighborhoods, they have been raised with an anxiety about self-support. Thus, working at age 10 may serve to reduce anxiety about later support.

Second, some have been raised in fatherless homes; many have mother dominated homes, and all have been ruled by women teachers at school. Working offers a means

ponents. These rooms are also being used extensively in NASA subcontract work to supply contamination-free units for the space program.

Encouraging results of tests thus far with laminar airflow here indicate a strong possibility of its eventual acceptance in surgical suites, patient care areas, central sterile supply, and research animal rooms.

of getting away from women, "getting independence from mother's whims, money and rage."

Third, since many of their friends work, and have the extra dollars that working brings, peer-group influence may lead some boys to seek a job. Working brings a kind of freedom, a degree of independence based on having one's own money, that only those who work can know.

Scheduling Difficult

The investigators are also interested in the relationship of the boys' home environment to their work patterns. Children whose homes have no phone, no time-scheduling, and for whom work serves as the only marker of time are considered to be in the lowest socio-economic group. Dr. Engel suspects that below a critical amount of household time-scheduling, no child can show a regular work pattern.

In getting this information, Dr. Engel and her colleagues have studied over 60 Boston area working boys through sensitive clinical tests and in intimate personal interviews.

Boys Cooperate

To qualify for the study, a boy had to be younger than 14, have his mother's written permission, and be seen at work by one of the researchers. The boys were paid a standard wage, and once they saw themselves as "working" for the researchers, they cooperated openly and interestedly.

The study will be completed this summer. Dr. Engel expects it will yield some interesting information about the relationship between "work-style," control of anger, and intelligence in the working child. Information regarding incidence of work at different ages and socio-economic levels, and the relationship of child work to economic necessity and family size and living arrangements is also expected from this study.

Dr. Dunphy Appointed to NIGMS Advisory Council

Dr. J. Englebert Dunphy, Chairman of the Department of Surgery at the University of California Medical Center in San Francisco, has been appointed to a 4-year term on the advisory council of the National Institute of General Medical Sciences. The appointment, announced by Dr. William H. Stewart, Surgeon General, U.S. Public Health Service, will be effective October 1, 1966.

Dr. Brown Named Acting Dep. Dir. As NIMH Expands

The appointment of Dr. Bertram S. Brown as Acting Deputy Director of the National Institute of Mental Health was announced recently by Dr. Stanley F. Yolles, Institute Director.



Dr. Brown

In his new post Dr. Brown will share with the director the total responsibility for the expanded NIMH activity in support of research, recruitment and training of mental health professionals, and development of community mental health service programs.

Administratively, Dr. Brown will aid the director in implementing the first major reorganization of the Institute in its 18 years of existence.

The new structure, approved by Surg. Gen. William H. Stewart earlier this year, is designed to give more emphasis to research by highlighting clinical research, prevention programs, innovative training programs and special mental health problem areas.

"Dr. Brown's career exemplifies the opportunities available to mental health professionals in the National mental health program. At 35, Dr. Brown, a psychiatrist, has earned a national reputation in the fields of mental health, mental retardation and corrections," Dr. Yolles said.

Experience Noted

Dr. Brown joined the NIMH in 1960. As Chief of the Community Mental Health Facilities Branch, he had a major role in aiding States and communities to establish eligibility for Federal funds to finance the construction and initial staffing of community mental health centers. Earlier, he served as Staff Director on the President's Panel on Mental Retardation.

At the time of his appointment as Acting Deputy Director, Dr. Brown held the newly created post of Associate Director for Mental Health Service Programs.

Born in Brooklyn, N.Y., in 1931, Dr. Brown graduated from Brooklyn College, where he was a member of Phi Beta Kappa, and received his medical training at Cornell University. He received his Master's Degree in Public Health at the Harvard University School of Public Health in 1960.

Following an internship at the Yale University School of Medicine, he was Resident and Teaching Fellow at the Harvard Medical School, Massachusetts Mental Health Center.

Dr. Davis, Noted for Heart Research, Ends 20 Years With PHS

Dr. James O. Davis, Head of the Section on Experimental Cardiovascular Disease of the National Heart Institute's Kidney and Electrolyte Metabolism Branch, ended his 20-year career with the Public Health Service on May 31 to become Professor and Chairman of the newly created Department of Physiology of the University of Missouri School of Medicine.



Dr. Davis

Dr. Davis is noted for his research on heart failure and hypertension during his 16 years with the National Heart Institute.

Among findings emerging from his investigation have been the important role of the adrenal cortex in the retention of sodium during heart failure, the hypersecretion of aldosterone during experimentally produced heart failure and renal hypertension and the primary importance of the renin-angiotensin system in regulating aldosterone secretion.

Background Cited

Columbia, Mo. is familiar territory for Dr. Davis. He received his Ph.D. in Zoology from the University of Missouri in 1942 and subsequently spent two years at the School of Medicine. At Washington University School of Medicine, St. Louis, he completed his M.D. and was later a Fellow in Cardiology.

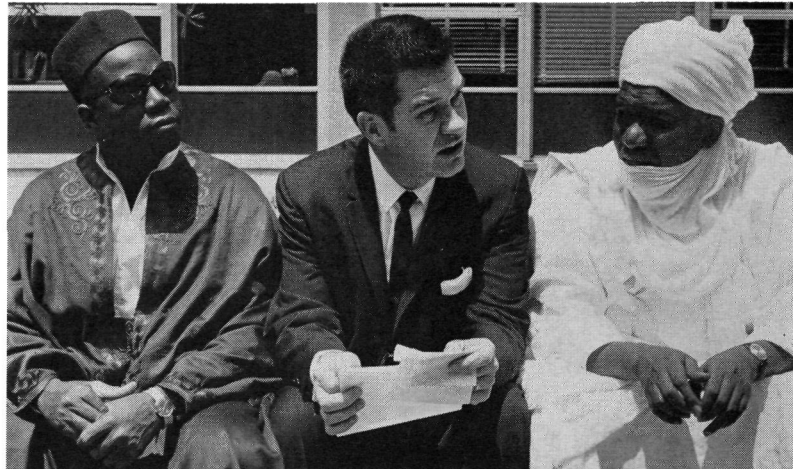
In 1947 he joined NIH's Section on Gerontology and Cardiovascular Diseases at the PHS Hospital in Baltimore, Md. Two years later, Dr. James Shannon, then Director of the National Heart Institute, asked Dr. Davis to establish an Institute program on experimental heart failure. Dr. Davis has been with the Laboratory of Kidney and Electrolyte Metabolism since that time.

He has maintained an active interest in education while at NIH. During the past few years he has held appointments as Visiting Professor of Physiology at Johns Hopkins University School of Medicine, the University of Virginia School of Medicine and Temple University School of Medicine.

"One of my strongest reasons for returning to a university is the opportunity to participate to a greater extent in the development of young men and women in the field of physiology," Dr. Davis says.

In addition to his teaching, Dr. Davis plans to initiate a program of research in experimental heart

Officials of Niger Tour NIH Facilities During Cultural Exchange Visit to U.S.



Dr. Stuart Sessoms, Deputy Director of NIH, talks to two officials from Niger during their recent visit. From left: Ibrahim Issa, Minister of Public Health; Dr. Sessoms and Zakara Mouddour, Minister of Saharan and Nomadic Affairs and Minister of Post and Telecommunications.—Photo by Tom Joy.

Wearing picturesque green and white tribal robes, two high officials of the Government of Niger, Africa, recently visited NIH as part of their 30-day tour of the United States.

The cultural exchange visit of Ibrahim Issa, Minister of Public Health, and Zakara Mouddour, Minister of Saharan and Nomadic Affairs and Minister of Post and Telecommunications, was arranged by the State Department.

Planned by the Office of International Research, their Public Health Service visit began by appointments with Daniel D. Swinney, Program Director, Office of International Health, and Surg. Gen. William H. Stewart.

After the showing of a film, narrated in French, which described the mission and functions of NIH, they toured the Clinical Center, accompanied by Dr. Roger Black, Associate Director of the Center, and discussed other NIH activities with Dr. Stuart Sessoms, Deputy Director of NIH, at luncheon.

The officials of Niger were particularly interested in the recent development of an experimental vaccine against rubella, since a vaccination program for measles

failure and hypertension similar to the one he has carried out at NIH. In this he will be assisted by Dr. C. I. Johnston, a postdoctoral fellow from the University of Sydney, Australia, who has worked with Dr. Davis for the past two years.

He has given many honorary lectures and participated in numerous symposia on heart failure and hypertension. In 1962 he helped organize and acted as chairman of a symposium on "Hormones and the Kidney" at Cambridge University, Cambridge, England. In the same year he gave the John Punnett Peters Memorial Lecture at Yale University School of Medicine. In 1965 he gave the A. N. Richards Lecture at the University of Pennsylvania School of Medicine.

had just been completed in their country with excellent results.

An explanation by Dr. Jacques May, OIR, of how a nutrition survey is developed and carried out in such a country as Niger was also of great interest to them.

Cancer-Inducing Potential Of Viruses Under Study

A study is presently being undertaken by investigators in the National Cancer Institute seeking a better understanding of the role of viruses in the causation of human cancer.

The possible cancer-inducing potential of hybrid viruses that combine the characteristics of virus oncogenic in newborn laboratory animals, such as Simian Virus 40, and nononcogenic strains of human virus, such as herpes or adenovirus, is a question of great importance in the search for human cancer viruses.

Previous studies have shown that single African green monkey cells (AGMK) can be infected by both human adenovirus and SV40, and there has been evidence of the formation of a "hybrid" between the two viruses. In order to determine whether mixed infection with SV40 and another type of DNA virus was possible, AGMK cells were inoculated with SV40 and herpes simplex virus (HSV).

NCI investigators report that when herpes is inoculated into cultures of African green monkey kidney cells 24 hours after SV40, the two viruses are found in the same nucleus of approximately 5 percent of the intact cells after incu-

Emphysema Described in New Pamphlet by NHI

Emphysema, a lung disease which strikes more than 17,000 Americans each year, is the subject of a new pamphlet from the National Heart Institute.

More widespread than lung cancer and tuberculosis combined, emphysema is still in many ways a mystery to medical science. Its exact cause is unknown, although several factors including repeated exposure to lung irritants, disease-producing organisms, allergic materials, or polluted air are suspected of playing important roles in its development.

Cigarette smoking is a prime suspect. Emphysema is about 13 times more prevalent among smokers than nonsmokers. A reversal of symptoms often takes place in persons with emphysema simply by the reduction or elimination of smoking.

Relief Possible

In one study, 44 of 66 patients who gave up smoking showed complete or nearly complete relief from coughing and had a substantially lower death rate over the next 20 years than those who continued to smoke.

The NHI pamphlet also discusses the prevention and symptoms of emphysema, as well as additional sources of information for persons suffering from the disease. Single copies of "Emphysema" (PHS Publication No. 1414) are available from the Heart Information Center, NIH, Bldg. 31, Rm. 6A04, Bethesda, Md. 20014. Multiple copies may be purchased at \$6.50 per 100 from the Superintendent of Documents, Government Printing Office, Washington, D. C.



The Public Health Service and the National Multiple Sclerosis Society are undertaking a cooperative research project to determine whether a virus causes multiple sclerosis. Undersecretary of HEW Wilbur J. Cohen (right), accepts check for \$59,816 from Sylvia Lawry, Executive Director of the Society.—Photo by Ralph Fernandez.

bation. Mixed infection is rare when the two viruses are inoculated simultaneously.

Dr. Alan S. Rabson, Dr. Gregory T. O'Connor, Frances J. Paul and Irene K. Berezsky, all of NCI, reported their findings in Science.

PORTABLE

(Continued from Page 1)

search, a science indispensable to the advancement of biomedical knowledge. He termed the dedication of the NIAMD facility as symbolic of the significant progress scientists are making in the battle against disease and suffering.

The NIAMD Director also praised the Pima Indians for their help, and thanked personnel of the Division of Indian Health for their cooperation.

The single-story, wooden frame structure is 44 feet long and 34 feet wide. It consists of a reception room, laboratory, and examination rooms for x-ray, EKG, and eye. In addition, there are two offices and two rest rooms. One entrance leads to the main hallway of the Sacaton Hospital.

Wherever the need arises in connection with field studies, the portable facility can be removed and the unit trucked to another site.

In previous studies, the Clinical Field Studies Unit operated from several trailers and carryall trucks, which will now be used for research trips to nearby areas.

Facility Needed

The clinical facility was constructed in order to conduct more intensive studies which would include such aspects as determination of the mode of inheritance of the disease and its complications, the role of diet and other environmental factors, the effect of the disease on pregnancy, and the effect of therapeutic measures.

Continuing investigations of arthritis among the Pimas, begun two years ago, and new studies of gall bladder disease, will also be facilitated by the new building.

In the 1965 diabetes survey, Dr. Thomas A. Burch, Chief of the Clinical Field Studies Unit, headed the study. He was accompanied by Dr. Peter Bennett, Clinical Associate of the Unit. In their continuing studies they will be assisted by two other physicians who will soon join the NIAMD survey.

In addition, Dr. Max Miller and associates at Western Reserve University, Cleveland, Ohio, will continue to collaborate in the diabetes studies by acting as on-the-spot advisors on diabetes, and by testing specimens in their laboratories.

Meeting Held to Assure Medicare Availability

Representatives of some 30 national organizations met in Washington May 20 with officials of the Department of Health, Education, and Welfare to see how they could help to assure that all people over 65 years of age will receive Medicare benefits at their local hospital when the health insurance program begins on July 1.

Catherine Delea Gives the Answers for NCI's Clinical Endocrinology Branch

When a knotty problem arises in the National Heart Institute's Clinical Endocrinology Branch, the investigators and technicians have a saying that covers every contingency: "Only God knows—and Catherine Delea."

The Branch Chief, Dr. Frederic C. Bartter, says, "It's fair to call her the branch's executive secretary. She can cope with any problem I hand her, or she can start the machinery for resolving it."

Miss Delea has worked in the



Catherine Delea checks the progress of one step in a steroid analysis. The hood is for protection in the use of radioactive materials.—Photo by Ed Hubbard.

branch since 1953. She serves as liaison between the clinical and laboratory activities of the branch.

Each day in the Clinical Center, samples and information are gathered from 18 study patients. Miss Delea is responsible for logging this information and maintaining a data file for future reference.

She supervises the technicians who perform some 30 analyses each day on the samples from patients. The press of her numerous duties leaves her little time for lab work.

She says, "I miss the sense of immediate accomplishment a person gets in the laboratory."

Miss Delea praises the "excellent technical staff" with whom she has long been associated. Some of these technicians have been her colleagues for 15 years.

Miss Delea joined the Heart Institute in Baltimore in 1949 and was the first technician hired by the branch there. Its chief then was the future Surgeon General, Dr. Luther L. Terry.

Research Varied

Investigators in the Clinical Endocrinology Branch have followed many paths of research since that time, but none has been more satisfying to Miss Delea and to Dr. Bartter than the research into the mechanism controlling aldosterone secretion.

Circadian periodicity, a new subject that fascinates Miss Delea, concerns recurring cycles (each lasting approximately 24 hours) characterized by fluctuations in the rate of secretion of various hormones, basal temperature and various metabolic processes.

Miss Delea, whose A.B. is from Notre Dame of Maryland, has taken graduate courses at many area schools—Loyola College of Baltimore, Johns Hopkins, Georgetown, and the University of Maryland.

In her dedication to science and advanced understanding of her work, Catherine Delea is a good example of how vital a laboratory technician can be at NIH, or in any research environment.

Study Shows Induced Eye Pressure Rise Inherited

Further evidence has been found that a steroid-induced rise in eye pressure is inherited and appears in subjects with a susceptibility to glaucoma. This is reported in a recent study supported by the National Institute of Neurological Diseases and Blindness.

Findings Cited

The study also confirmed applanation tonometry as a reliable measure of the degree of response.

Knowledge of the mode of inheritance of glaucoma and of a more reliable diagnostic test to detect potential sufferers at an early age will allow investigators to study the history of the development of this eye disorder. Periodic examinations of glaucoma suspects and early treatment if glaucoma develops, may prevent needless sight loss.

For 4 weeks, participants in the

study applied steroid drops (dexamethasone) to the right eye three times daily. The other eye was used as a control to determine the individual's normal pressure. Applanation tonometry was performed weekly. All subjects examined in the study had perfectly normal eyes and visual function.

Results Described

Fifteen subjects exhibited a low rise (5 mm. Hg. or less) in eye pressure following steroid application, and a similar response was found in almost all their parents. Parents of 4 subjects exhibiting a marked rise (16 mm. Hg. or more) in eye pressure responded with a high degree of increased pressure.

This study by Dr. Mansour F. Armaly, of the University of Iowa in Iowa City, was reported in Archives of Ophthalmology.

Dr. Knight Leaves NIAID To Head Medical Dep't At Baylor University

Dr. Vernon Knight, Clinical Director of the National Institute of Allergy and Infectious Diseases, will leave NIH June 30 to become Professor and Chairman of the Department of Microbiology at Baylor University College of Medicine, Houston, Tex.

He has also been named Head of the Division of Infectious



Dr. Knight



Dr. Wolff

Diseases in the Department of Medicine there. Both appointments are effective July 1.

Dr. Sheldon Wolff of the Laboratory of Clinical Investigations will become Acting Clinical Director of NIAID on July 1, according to Dr. Dorland J. Davis, Institute director.

M.D. from Vanderbilt

Dr. Wolff is Head of the Laboratory's Clinical Physiology section. A member of the NIAID scientific staff since 1960, he is a graduate of the University of Georgia, studied at the University of Heidelberg, Germany, and received an M.D. degree from Vanderbilt University School of Medicine.

Dr. Knight, who has been on the NIAID staff since 1959, was formerly Assistant Professor of Medicine at Cornell University and Associate Professor at Vanderbilt University. He received his A.B. degree from William Jewell College in Liberty, Mo., an M.S. degree from Harvard University, and his M.D. degree from Harvard Medical School.

In 1961, Dr. Knight set up the NIAID study of viral respiratory diseases using normal volunteers brought to the Clinical Center from some 14 Federal prisons. In the program's first 5 years, more than 1,000 volunteers took part in the study of some 20 different viral infections.

Recognized as an expert on viral respiratory diseases, Dr. Knight has written three chapters on the subject in Harrison's "Principles of Internal Medicine," a textbook now in press. He has also published 62 articles on his research in scientific journals.

Dr. Chester W. Emmons, Noted Fungi Authority, Ends 37-Year Career

Dr. Chester W. Emmons of the National Institute of Allergy and Infectious Diseases will retire this week after a distinguished 37-year career in medical mycology.



Dr. Emmons

During 30 years as a research scientist at NIH, Dr. Emmons became a world authority on fungi and fungal diseases, a leader in the field of experimental mycology and a frequent participant in international microbiology meetings.

Dr. Emmons was named Head of the Medical Mycology Section of the NIAID Laboratory of Infectious Diseases in 1961, after having been Chief Mycologist of the laboratory and its organizational counterparts since 1936.

He joined the NIH staff after 2 years at the School of Tropical Medicine in San Juan, Puerto Rico.

Earlier he received a B.S. degree from Penn College in Iowa, an M.S. degree from the University of Iowa and a Ph.D. degree from Columbia University.

Background Given

Dr. Emmons' work included the first identification of a fungal infection in desert rodents (known in humans as Valley Fever), a serious disease problem in the Southwest; original research in establishing the importance of histoplasmosis; the first isolations of *Histoplasma* and *Cryptococcus* from their natural habitats; isolation and description of new fungal disease agents, and, recently, leading work on antibiotic treatment of mycotic diseases.

His laboratory reported some of the first and most conclusive evidence on the usefulness of Amphotericin B, the only antibiotic now being used for a number of systemic fungal infections.

Dr. Emmons was a professorial lecturer at the George Washington University Medical School from 1942 to 1962 and consultant in mycology at the Armed Forces Institute of Pathology since 1958.

He has published more than 150 papers in scientific journals and serves on the editorial boards of four journals.

A member of a number of national and international professional societies, he has been President of the Mycological Society of America, Secretary-Treasurer of the American Academy of Microbiology and Vice President of the International Society for Human and Animal Mycology.

In August, Dr. Emmons will con-

'Picture for Patients' Program at NIH Gets Painting in Memory of Dr. Rodgers



Discussing the painting presented to the Clinical Center in memory of Dr. Dorothy Gates Rodgers at a recent ceremony are (from left): Artist Norma Eskenazi; Philip Sapir, National Institute of Mental Health; Mrs. Ethel Cox, a CC patient; Mrs. Luther Terry, wife of the former PHS Surgeon General, and Mrs. Harriett Englander, hospital volunteer in charge of art cart.—Photo by Ralph Fernandez.

In memory of the late Dr. Dorothy Gates Rodgers, her NIH friends and associates recently presented to the Clinical Center the award-winning oil painting "Lifeguards," in a "Pictures for Patients" program.

Presentation was made by Philip Sapir, Chief of the Behavioral Sciences Research Branch, National Institute of Mental Health.

Prior to her death in May Dr. Rodgers was Chief of the Program Analysis Section, Research Grants Branch, NIMH.

The painting was accepted by Mrs. Luther Terry, wife of the former Public Health Service Surgeon General, who initiated the Pictures for Patients program among Federal hospitals.

Program Supported

The program got off to a fast start at the Clinical Center, where reproductions of more than 200 paintings from which patients may choose are available. The PHS Officers' Wives' Club and other members of the community have provided support.

The painting by Norma Eskenazi won first prize among paintings in R&W's 8th Annual NIH Art Exhibit. The artist is the wife of Solomon Eskenazi, Chief, Data Processing Section, Statistics and Analysis Branch, Division of Research Grants.

tribute to the advance of science in another way. He and Mrs. Emmons will care for three of their 13 grandchildren while their son, a virologist with the California Health Department, attends a scientific meeting in Japan.

Then they will begin an around-the-world trip, part scientific, part pleasure.

Dr. Emmons has accepted invitations to give two lectures in October, one at the meeting of the International Dermatological Society in Bratislava, Czechoslovakia; the other at the 20th anniversary meeting of the Mycological Society of Japan in Tokyo.

In accepting the painting, which was mounted in the CC's solarium for all patients to enjoy, Mrs. Terry noted that it conveys a spirit of outdoors and space and is the type of painting patients choose most often for their rooms.

Dr. Louis A. Wienckowski, Chief, Consultation and Special Services Branch, NIMH, was chairman of the fund to acquire the picture and took part in the ceremony.

Also present were: Drs. Betty Pickett and Dorothy T. Carlson, NIMH; Betsy Popof, NIH Hospital Volunteer Program Chairman; Harriett Englander, hospital volunteer in charge of the art cart from which patients select paintings to hang in their rooms; Janet L. Lunceford, Cancer Nursing Service, and Ethel Cox, a CC patient from Elbert, W. Va.

The painting will bear a plate memorializing Dr. Rodgers.

DR. SHANNON

(Continued from Page 1)

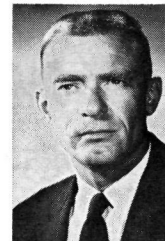
Award follows closely his receipt of another high honor. In April he was presented with the Distinguished Service Medal, the top award given by the Department of Health, Education, and Welfare to commissioned officers of the Public Health Service.

Receiving the gold medal awards from the President along with Dr. Shannon were Dr. Elson B. Helwig, chief of the Department of Pathology; Robert E. Hollingsworth, General Manager of the Atomic Energy Commission; Thomas C. Mann, retiring Undersecretary of State for Economic Affairs, and H. Rex Lee, Governor of American Samoa.

NIAID Scientists Go to Overseas Assignments

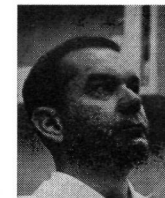
Two scientists of the National Institute of Allergy and Infectious Diseases left last week for 1-year research assignments at overseas laboratories.

Dr. Ned H. Wiebenga, Acting Chief of the Laboratory of Tropical Virology, has been assigned to the U.S. Army Medical Command, 406th Medical Laboratory, near Tokyo, Japan. He will direct the Department of Viral and Rickettsial Diseases of the Laboratory and conduct a special study of Korean hemorrhagic fever.



Dr. Wiebenga

Dr. John J. Munoz, research microbiologist at the NIAID's Rocky Mountain Laboratory in Hamilton, Mont., will spend the year at the Pasteur Institute in Paris, France. He plans to study the digestion of



Dr. Munoz

antigens by tissue enzymes, collaborating with Dr. Claude LaPresle in the Pasteur laboratory.

Hemorrhagic fevers have been Dr. Wiebenga's special research interest since he joined the Institute in 1961, after 18 years of service in the U.S. Navy. He has worked on hemorrhagic fever studies in Bolivia, and last year was a member of the U.S. exchange mission to the Soviet Union.

Seeks Agent

Korean hemorrhagic fever is believed to be caused by a virus, although none has been isolated. The study in Japan will seek the agent and examine the possible role of field rodents as carriers of the disease.

Several hundred cases of a disease similar to Korean hemorrhagic fever have been noted in Japan in recent years, according to Dr. Wiebenga, and these are to be studied along with known cases of the fever in Korea.

Plans are being made for a field laboratory to be set up on the outskirts of Seoul, Korea. Some field work on dengue may be done in South Vietnam.

Dr. Munoz, working in the Paris laboratory where much study has already been conducted on the enzymatic breakdown of protein antigens, hopes to isolate the fragments of antigens which stimulate antibody formation and produce hypersensitivity reactions. His main objective is to find the role that these fragments may play in allergic conditions.